Reply to Office action of December 5, 2005

# **Amendments to the Drawings:**

Applicants have amended Figures 1-6 in accordance with the objections raised in Form PTO-948. Revised versions of the figures are submitted herewith under separate cover.

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### **REMARKS**

This Amendment is filed in response to the Office Action dated December 5, 2005. Applicants first note with appreciation the Examiner's thorough examination of the application. In response to the Office Action, Applicant has amended various claims to clarify the claimed invention. Applicants respectfully submit that the claims are in condition for allowance and respectfully request reconsideration and allowance of the application in light of the following remarks.

### I. The Drawings Are In Proper Form

Applicants submit herewith under separate cover amended drawings that address the issues raised in Form PTO-948. Applicants submit that the drawings, as amended, are in proper form.

### II. The Claims Are In Proper Form

On pages 2-4, the Office Action raises several § 112 rejections to the claims. Applicants have amended the claims to address these issues. Applicants would like to comment further, however, concerning two rejections raised in the Office Action. With regard to Claims 16, 27, 37, 67, 74, and 81 and Claims 72 and 79, the Office Action argues that the claims are vague as that do not recite what occurs when the recited limitational condition is not met. Applicants respectfully disagree. Nowhere does the patent law require that Applicants recite all modes of an invention. These claims are not vague. If a potential infringing system meets the claim elements when the limitational condition occurs, then it infringes the claim. If the a potential infringing system does not meet the claim elements when the limitational condition occurs, then it does not infringe the claim. The fact that these claims do not mention what happens the limitational condition is not met, does not in some way raise issues of vagueness as to what the claims cover.

With regard to Claims 86 and 88, the Office Action indicates that it is unclear what Applicants are attempting to claim. Applicants are perplexed by this objection. The claim is directed to a system that determines how many times a supplier's product was requested and how many times the supplier had the product in stock. This information is used determine a hit ratio for the supplier. Applicants respectfully submit that these claims are clear.

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# III. Independent Claims 1, 20, 31, 41, 47, and 50 Are Patentable

With regard to the page 5, the Office Action rejects independent Claims 1, 20, 31, 41, 47, and 50 as anticipated by US Patent Application No. 2003-0187851 to Fay. The '851 Fay reference discloses caching of airline data from various CRSs. The Office Action cites paragraph [0048] of the '851 Fay reference against these claims. However, the '851 Fay reference only discloses that there are different "shelf lifes" for information in the cache based on how soon the date occurs. The reference discloses setting a time period in the cache that starts when availability is updated for the item after which time period the data is likely no longer reliable. For example, data for dates occurring 30 to 60 days from now would have a shelf life of 10 minutes in the cache, after which the data should not be used. Although the '851 Fay reference discloses a shelf life after which the data is no longer valid in the cache. It merely discloses a time after which the data should no longer be used. The '851 Fay reference no where discloses updating the data in the cache based on start dates occurring earlier in time more often than later occurring dates, as is recited in independent Claims 1, 20, 31, 41, 47, and 50, as well as the claims that depend therefrom, are patentable over the cited reference.

### IV. Independent Claims 53, 57, 61, 86 and 88 Are Patentable

The Office Action rejected Claims 53, 57, and 61 as obvious in light of the '851 Fay reference in combination with US Patent Application No. 2003-0105744 to McKeeth. The Office Action argues that the '851 Fay reference discloses all aspects of the claims except for updating data based on scoring. He argues, however, that the '744 McKeeth reference discloses updating data on web pages based on popularity. Further, with regard to Claims 86 and 88 that specifically recite determine hit ratios, the Office Action cites US Patent Application No. 2004-0098541 to Megiddo. Applicants respectfully disagree with these rejections.

The '851 Fay reference nowhere teaches or suggests updating the cache based on the particulars of the data. It only discloses performing updates either after several reservations have been made for a product or a denial of availability is received. The '851 Fay reference nowhere discloses issues related to maintenance of a large cache of data. The claimed invention realizes

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that caching of data for products can create an unwieldy database that is difficult to update. The '851 Fay reference nowhere mentions such an issue. While the McKeeth and Megiddo references describe in general respectively determining popularity and/or hit rates for items and McKeeth describes updating links based on popularity, Applicants respectfully submit that one skilled in the art would not glean from the references teaching or suggestions for updating a large cache of data based on the popularity of the data. The cited combination lacks teaching or suggestion concerning the need to update less than all of the data cache. As such, Applicants respectfully submit that independent Claims 53, 57, 61, 86 and 88, as well as the claims that depend therefrom, are patentable over the cited reference.

# V. Independent Claims 65, 73, and 80 Are Patentable

Independent Claims 65, 73, and 80 recite a "stitching method" whereby an itinerary having a long duration of use can be accommodated by a cache containing data for shorter durations of use. Specifically, it is difficult to cache data for all availability scenarios, especially scenarios that include long durations of use. By stitching together two shorter duration itineraries from the cache to fulfill a request for a longer duration itinerary, the system is not required to maintain the longer duration itinerary information. For example, if a user asked for a hotel stay starting on April 1, 2006 and ending on April 10, 2006, the system could use cache data for availability and pricing from April 1 to April 6 and cache data for April 7 to April 10 to construct a stay for the requested duration.

On page 12, the Office Action rejects Claims 65, 73, and 80 as anticipated by the '851 Faye reference and dependent Claims 14-19, 26-29, 36-41, 67-72, 73-79, 82-85 as obvious in light of the '851 Faye reference in combination with US Patent Application No. 2004-0078251 to DeMarcken. However, the '851 Fay reference nowhere teaches or suggests:

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dividing the length of use requested by the user into at least two selected start dates and lengths of use that are each less than the maximum length of use stored in the storage device; and

determining the availability of the product for each selected start date and length of use to thereby determine the availability of the product for the requested start date and length of use.

The DeMarcken reference discloses how to break up a travel availability request so that it can be processed in parallel using a bank of computers. However, DeMarcken nowhere describes the stitching method recited in these claims for determining the availability of a longer length of use request using two or more shorter length of use availability data. As such, Applicants respectfully submit that independent Claims 65, 73, and 80, as well as the claims that depend therefrom, are patentable over the cited reference.

#### **CONCLUSION**

In light of the amended claims and the remarks above, Applicants respectfully submit that the application is in condition for allowance and respectfully request that a Notice of Allowance be issued. The Examiner is encouraged to contact Applicants' counsel to discuss any outstanding issues so as to expedite the application.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required

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therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

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#### CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on April 5, 2006

W. Kevin Ransom

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